REMARKS

Claims 1-34 are currently pending. Claims 1 and 10 have been amended and are supported by page 6, lines 20-21, and page 10, lines 12-21, of the specification. Claims 3 and 12 have been amended for clarification. Claim 23 has been amended to overcome the 35 USC 112, second paragraph, rejection. Claims 31-33 have been amended to include subject matter from indicated-as-allowable claim 23. New claim 34 is supported by the original claims and page 6, lines 20-21, of the specification. It is respectfully submitted that no new matter has been added.

The Patent Office rejected claim 23 under 35 U.S.C. 112, second paragraph, as "initialize the R-SCH state" lacks an antecedent basis. This claim language has been amended to recite "generate the R-SCH initialization state." It is respectfully requested that the Patent Office withdraw its rejection of claim 23 under 35 U.S.C. 112, second paragraph.

The Patent Office is thanked for its indication of allowable subject matter in claims 23-30.

The Patent Office rejected claims 1-4, 10-13, and 19 under 35 U.S.C. 102(b) as being anticipated by Kadaba, U.S. Published Patent Application No. 2002/0172217.

For a claim to be anticipated, each and every non-inherent claim limitation must be disclosed in a single reference. MPEP 2131.

Claim 1 recites

> A method for operating a mobile station with a base station, comprising: when the mobile station is in an Autonomous mode of operation, autonomously transmitting data from the mobile station to the base station on a reverse channel; in response to receiving an acknowledgment indication from the base station, that comprises a reverse channel assignment message for the mobile station, switching the mobile station to a Scheduled mode of operation, where, while in the Scheduled mode, the mobile station provides the data transmission power and the selected data transmission buffer status as a request; and transmitting data from the mobile station on an assigned reverse channel.

Claim 10 recites

> A mobile station, comprising: an RF transceiver for conducting

bidirectional wireless communications with a base station; and a data processor operating under the control of a stored program for, when the mobile station is in an Autonomous mode of operation, autonomously transmitting from the mobile station to the base station on a reverse channel, said data processor being responsive to a reception of an acknowledgment indication from the base station, that comprises a reverse channel assignment message for the mobile station, for switching the mobile station to a Scheduled mode of operation and for transmitting data from the mobile station on an assigned reverse channel, where, while in the Scheduled mode, the mobile station provides the data transmission power and the selected data transmission buffer status as a request.

Claims 1 and 10 recite "switching the mobile station to a Scheduled mode of operation, where, while in the Scheduled mode, the mobile station provides the data transmission power and the selected data transmission buffer status as a request."

Kadaba discloses (paragraph 0027) that the mobile station alerts a base station to its presence and provides it buffer size. Kadaba also discloses (paragraph 0030) that the base station determines the size, duration, and rate of a mobile station's data burst transmission without ambiguity based on the mobile station's buffer size. Although Kadaba (paragraphs 0077-0078) does disclose in a case that the mobile station and the base station negotiate a maximum data rate, Kadaba does not disclose how this is done nor disclose or suggest "switching the mobile station to a Scheduled mode of operation, where, while in the Scheduled mode, the mobile station provides the data transmission power and the selected data transmission buffer status as a request."

Thus, claims 1- 4, 10-13, and 19 are not anticipated by Kadaba.

The Patent Office rejected claims 5-9, 14-18, 20-22, and 31-33 under 35 U.S.C. 103(a) as being unpatentable over Kadaba, U.S. Published Patent Application No. 2002/0172217, in view of Fong, U.S. Published Patent Application No. 2004/0223455.

Regarding claims 5-9 and 14-28, Fong does not remedy the deficiency of Kadaba. Fong discloses that the mobile station may report a maximum supportable data rate of the mobile

station and the status of buffers in the mobile station (paragraph 0028) from which information a scheduler may determine a data rate to grant the mobile station (paragraph 0033). "Reporting the buffer status in the EVENT field allows the base station to know how much data the mobile station has, and thus to decide the scheduling priority and what data rate to assign the mobile station in scheduled mode" (Fong, paragraph 0038). Fong does not disclose or suggest "switching the mobile station to a Scheduled mode of operation, where, while in the Scheduled mode, the mobile station provides the data transmission power and the selected data transmission buffer status as a request."

Thus, claims 5-9 and 14-18 are allowable over the prior art of record.

Claim 20 recites

> A method for operating a mobile station with a base station for transmitting data packets from the mobile station to the base station over a reverse supplemental channel, comprising: when the mobile station is in an Autonomous mode of operation, autonomously transmitting from the mobile station to the base station initiate a data transmission from the mobile station to the base station, the transmission comprising a Supplemental Channel Request Message that is transmitted over a Reverse Enhanced Access Channel or a reverse supplemental channel; receiving an acknowledgment indication from the base station over a Common Power Control Channel, the acknowledgment indication comprising a **Supplemental Channel Assignment Message** comprising **power control bits and data rate grant bits**; in response to receiving the acknowledgment indication from the base station, switching the mobile station to a Scheduled mode of operation; transmitting data packets from the mobile station on an assigned reverse channel, further comprising transmitting mobile station buffer activity bits and a data rate request bit, and receiving, from the base station in response, a power control bit, a data rate grant bit and an acknowledgment/non-acknowledgment indication.

Kadaba, as discussed above, does not disclose a **Supplemental Channel Assignment**

Message comprising **power control bits and data rate grant bits**. The Patent Office asserted that Fong teaches "a channel assignment message (see paragraph [0030]) comprising power control bits and data rate grant bits (see paragraph [0042]) and date rate grant bits (see paragraph [0033])."

Fong (paragraph [0030]) recites

> A mobile station can transmit in one of two modes: autonomous mode and scheduled mode. In scheduled mode, an explicit assignment of the data rate is provided by the scheduler 40 in the base station 19 to the mobile station 16. In autonomous mode, a mobile station 16 containing data to transmit does not have to wait for the scheduler 40 to schedule a channel for the mobile station 16. Instead, the mobile station 16 is able to autonomously send data over the reverse wireless link at a data rate that is less than or equal to a specified maximum autonomous data rate (specified by the base station 19). Effectively, in autonomous mode, the mobile station 16 is able to transfer packet data at a data rate up to the maximum autonomous data rate without an explicit scheduled rate assignment received in either layer 2 signaling or layer 3 signaling messages from the scheduler 40 in the base station 19.

Fong (paragraph [0042]) recites

> In addition to enabling load management of the reverse wireless link (e.g., R-PDCH), the reverse request messages sent by each mobile station also allows for outer loop power control on the reverse link, according to some implementations. Outer loop power control refers to controlling the power of transmission over a wireless link based on detected data error rates (such as errors in frames or in data bits). For example, the reverse request message sent on R-REQCH can be used for power control when actual data (such as data on R-PDCH) is not being transmitted for some extended period of time.

Fong (paragraph [0033]) recites

> **To determine the bandwidth requirements of the mobile stations**

> **being served by the base station 19, the scheduler 40 uses the buffer status and maximum supportable data rate information provided in the reverse request message. In this manner, the scheduler 40 can determine a data rate to grant each mobile station in scheduled mode.** Also, in one implementation, the scheduler 40 can use the reverse request message information to determine how much of the bandwidth of the reverse wireless link will be taken up by the autonomous mode mobile stations (the mobile stations transmitting in autonomous mode). Any remaining bandwidth of the reverse wireless link can then be allocated to scheduled mode mobile stations by the scheduler 40 explicitly assigning data rates to the scheduled mode mobile stations. In scheduled mode, assignment of a data rate to a mobile station can be performed by the base station sending a grant message in a grant channel (GCH) to a mobile station.

In Fong, the scheduler assesses the bandwidth requirements of the mobile stations to determine a data rate to grant each mobile station in scheduled mode. In Fong, the scheduler conceivably could query the mobile stations as to the data transmission capabilities rather than the mobile stations making a data rate request. There is no disclosure or suggestion in these passages of Fong of "a **Supplemental Channel Assignment Message** comprising **power control bits and data rate grant bits**."

Thus, because of the noted deficiencies of both Kadaba and Fong, claim 20 is allowable over these references.

Claim 31 recites

> A method for operating a mobile station with a base station, comprising: when the mobile station is in an autonomous mode of operation, autonomously transmitting data from the mobile station to the base station on a reverse channel; the mobile station receiving an assignment message from the base station, the assignment message comprising an acknowledgment/non-acknowledgment indication, power control bits, and data rate grant bits; in response to receiving an acknowledgment

indication from the base station, switching the mobile station to a scheduled mode of operation; and transmitting data from the mobile station to the base station over a reverse supplemental channel (R-SCH), wherein there exist at least four R-SCH states and a plurality of transitions between the R-SCH states.

Claim 32 recites

A mobile station, comprising: an RF transceiver for conducting bidirectional wireless communications with a base station; and a data processor operating under the control of a stored program for, when the mobile station is in an autonomous mode of operation, autonomously transmitting from the mobile station to the base station on a reverse channel, the mobile station receiving an assignment message from the base station, the assignment message comprising an acknowledgment/non-acknowledgment indication, power control bits, and data rate grant bits, said data processor being responsive to a reception of an acknowledgment indication from the base station for switching the mobile station to a scheduled mode of operation and for transmitting data from the mobile station to the base station over a reverse supplemental channel (R-SCH), wherein there exist at least four R-SCH states and a plurality of transitions between the R-SCH states.

Claim 33 recites

A method for operating a mobile station with a base station for transmitting data packets from the mobile station to the base station over a reverse supplemental channel, comprising: when the mobile station is in an autonomous mode of operation, autonomously transmitting from the mobile station to the base station to initiate a data transmission from the mobile station to the base station, the transmission comprising a supplemental channel request message that is transmitted over a reverse channel; in response to receiving an acknowledgment indication from the base station, switching the mobile station to a scheduled mode of

operation; transmitting data from the mobile station to the base station over a reverse supplemental channel (R-SCH), wherein there exist at least four R-SCH states and a plurality of transitions between the R-SCH states, further comprising transmitting mobile station buffer activity bits and a data rate request bit, and receiving, from the base station in response, a power control bit, a data rate grant bit and an acknowledgment/non-acknowledgment indication.

Claims 31-33 recite "transmitting data from the mobile station to the base station over a reverse supplemental channel (R-SCH), wherein there exist at least four R-SCH states and a plurality of transitions between the R-SCH states." Neither Kadaba nor Fong teach or suggest this limitation.

Thus, claims 31-33 are allowable over the prior art of record.

New claim 34 is believed to define over the prior art of record.

The Patent Office is respectfully requested to reconsider and remove the rejections of the claims 1-33 under 35 U.S.C. 102(b) based on Kadaba or 35 U.S.C. 103(a) based on Kadaba in view of Fong, and to allow all of the pending claims 1-34 as now presented for examination. An early notification of the allowability of claims 1-34 is earnestly solicited.

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